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analog

SCIENCE FACT — SCIENCE FICTION

In this issue: **THE GREAT GRAY PLAGUE**
by Raymond F. Jones

Pandemic

Generally,
human beings don't do
totally useless things
consistently and widely.
So—maybe there is
something to it—

BY J. F. BONE

■ "We call it Thurston's Disease for two perfectly good reasons," Dr. Walter Kramer said. "He discovered it—and he was the first to die of it." The doctor fumbled fruitlessly through the pockets of his lab coat. "Now where the devil did I put those matches?"

"Are these what you're looking for?" the trim blonde in the gray seersucker uniform asked. She picked a small box of wooden safety matches from the littered lab table beside her and handed them to him.

"Ah," Kramer said. "Thanks. Things have a habit of getting lost around here."

"I can believe that," she said as she eyed the frenzied disorder around her. Her boss wasn't much better than his laboratory, she decided as she watched him strike a match against the side of the box and apply the flame to the charred bowl of his pipe. His long dark face became half obscured behind a cloud of bluish smoke as he puffed furiously. He looked like a lean untidy devil recently escaped from hell with his thick brows, green eyes and lank black hair highlighted intermittently by the leaping flame of the match. He certainly didn't look like a pathologist. She wondered if she was going to like working with him, and shook her head imperceptibly. Possibly, but not probably. It might be difficult being cooped up here with him day after day. Well, she could always quit if things got too tough. At least there was that consolation.

He draped his lean body across a

lab stool and leaned his elbows on its back. There was a faint smile on his face as he eyed her quizzically. "You're new," he said. "Not just to this lab but to the Institute."

She nodded. "I am, but how did you know?"

"Thurston's Disease. Everyone in the Institute knows that name for the plague, but few outsiders do." He smiled sardonically. "Virus pneumonic plague—that's a better term for public use. After all, what good does it do to advertise a doctor's stupidity?"

She eyed him curiously. *"De mortuis?"* she asked.

He nodded. "That's about it. We may condemn our own, but we don't like laymen doing it. And besides, Thurston had good intentions. He never dreamed this would happen."

"The road to hell, so I hear, is paved with good intentions."

"Undoubtedly," Kramer said dryly. "Incidentally, did you apply for this job or were you assigned?"

"I applied."

"Someone should have warned you I dislike clichés," he said. He paused a moment and eyed her curiously. "Just why did you apply?" he asked. "Why are you imprisoning yourself in a sealed laboratory which you won't leave as long as you work here. You know, of course, what the conditions are. Unless you resign or are carried out feet first you will remain here . . . have you considered what such an imprisonment means?"

"I considered it," she said, "and it doesn't make any difference. I have no ties outside and I thought I could help. I've had training. I was a nurse before I was married."

"Divorced?"

"Widowed."

Kramer nodded. There were plenty of widows and widowers outside. Too many. But it wasn't much worse than in the Institute where, despite precautions, Thurston's disease took its toll of life.

"Did they tell you this place is called the suicide section?" he asked.

She nodded.

"Weren't you frightened?"

"Of dying? Hardly. Too many people are doing it nowadays."

He grimaced, looking more satanic than ever. "You have a point," he admitted, "but it isn't a good one. Young people should be afraid of dying."

"You're not."

"I'm not young. I'm thirty-five, and besides, this is my business. I've been looking at death for eleven years. I'm immune."

"I haven't your experience," she admitted, "but I have your attitude."

"What's your name?" Kramer said.

"Barton, Mary Barton."

"Hm-m-m. Well, Mary—I can't turn you down. I need you. But I could wish you had taken some other job."

"I'll survive."

He looked at her with faint admiration in his greenish eyes. "Perhaps you will," he said. "All right. As to your duties—you will be my assistant, which means you'll be a dishwasher, laboratory technician,

secretary, junior pathologist, and coffee maker. I'll help you with all the jobs except the last one. I make lousy coffee." Kramer grinned, his teeth a white flash across the darkness of his face. "You'll be on call twenty-four hours a day, underpaid, overworked, and in constant danger until we lick Thurston's virus. You'll be expected to handle the jobs of three people unless I can get more help—and I doubt that I can. People stay away from here in droves. There's no future in it."

Mary smiled wryly. "Literally or figuratively?" she asked.

He chuckled. "You have a nice sense of graveyard humor," he said. "It'll help. But don't get careless. Assistants are hard to find."

She shook her head. "I won't. While I'm not afraid of dying I don't want to do it. And I have no illusions about the danger. I was briefed quite thoroughly."

"They wanted you to work upstairs?"

She nodded.

I suppose they need help, too. Thurston's Disease has riddled the medical profession. Just don't forget that this place can be a death trap. One mistake and you've had it. Naturally, we take every precaution, but with a virus no protection is absolute. If you're careless and make errors in procedure, sooner or later one of those submicroscopic protein molecules will get into your system."

"You're still alive."

"So I am," Kramer said, "but I don't take chances. My predecessor, my secretary, my lab technician, my junior pathologist, and my dishwasher all died of Thurston's Disease." He eyed her grimly. "Still want the job?" he asked.

"I lost a husband and a three-year old son," Mary said with equal grimness. "That's why I'm here. I want to destroy the thing that killed my family. I want to do something. I want to be useful."

He nodded. "I think you can be," he said quietly.

"Mind if I smoke?" she asked. "I need some defense against that pipe of yours."

"No—go ahead. Out here it's all right, but not in the security section."

Mary took a package of cigarettes from her pocket, lit one and blew a cloud of gray smoke to mingle with the blue haze from Kramer's pipe.

"Comfortable?" Kramer asked.

She nodded.

He looked at his wrist watch. "We have half an hour before the roll tube cultures are ready for examination. That should be enough to tell you about the modern Pasteur and his mutant virus. Since your duties will primarily involve Thurston's Disease, you'd better know something about it." He settled himself more comfortably across the lab bench and went on talking in a dry schoolmasterish voice. "Alan Thurston was an immunologist at Midwestern University Medical School. Like most men in the teaching trade, he also had a research project. If it worked out,

he'd be one of the great names in medicine, like Jenner, Pasteur, and Salk. The result was that he pushed it and wasn't too careful. He wanted to be famous."

"He's well known now," Mary said. "at least within the profession."

"Quite," Kramer said dryly. "He was working with gamma radiations on microorganisms, trying to produce a mutated strain of *Micrococcus pyogenes* that would have enhanced antigenic properties."

"Wait a minute, doctor. It's been four years since I was active in nursing. Translation, please."

Kramer chuckled. "He was trying to make a vaccine out of a common infectious organism. You may know it better as *Staphylococcus*. As you know, it's a pus former that's made hospital life more dangerous than it should be because it develops resistance to antibiotics. What Thurston wanted to do was to produce a strain that would stimulate resistance in the patient without causing disease—something that would help patients protect themselves rather than rely upon doubtfully effective antibiotics."

That wasn't a bad idea."

"There was nothing wrong with it. The only trouble was that he wound up with something else entirely. He was like the man who wanted to make a plastic suitable for children's toys and ended up with a new explosive: You see, what Thurston didn't realize was that his cultures were contaminated. He'd secured them from the University Clinic and had, so he thought, isolated them. But somehow he'd brought a virus along—probably one of the orphan group or possibly a phage."

"Orphan?"

"Yes—one that was not a normal inhabitant of human tissues. At any rate there was a virus—and he mutated it rather than the bacteria. Actually, it was simple enough, relatively speaking, since a virus is infinitely simpler in structure than a bacterium, and hence much easier to modify with ionizing radiation. So he didn't produce an antigen—he produced a disease instead. Naturally, he contacted it, and during the period between his infection and death he managed to infect the entire hospital. Before anyone realized what they were dealing with, the disease jumped from the hospital to the college, and from the college to the city, and from the city to—"

"Yes, I know that part of it. It's all over the world now—killing people by the millions."

Well," Kramer said, "at least it's solved the population explosion." He blew a cloud of blue smoke in Mary's direction. "And it did make Thurston famous. His name won't be quickly forgotten."

She coughed. "I doubt if it ever will be," she said, "but it won't be remembered the way he intended."

He looked at her suspiciously. "That cough—"

"No, it's not Thurston's Disease. It's that pipe. It's rancid."

"It helps me think," Kramer said.

"You could try cigarettes—or candy," she suggested.

"I'd rather smoke a pipe."

"There's cancer of the lip and tongue," she said helpfully.

"Don't quote Ochsner. I don't agree with him. And besides, you smoke cigarettes, which are infinitely worse."

"Only four or five a day. I don't saturate my system with nicotine."

"In another generation," Kramer observed, "you'd have run through the streets of the city brandishing an ax smashing saloons. You're a lineal descendent of Carrie Nation." He puffed quietly until his head was surrounded by a nimbus of smoke. "Stop trying to reform me," he added. "You haven't been here long enough."

"Not even God could do that, according to the reports I've heard," she said.

He laughed. "I suppose my reputation gets around."

"It does. You're an opinionated slave driver, a bully, an intellectual tyrant, and the best pathologist in this center."

"The last part of that sentence makes up for unflattering honesty of the first," Kramer said. "At any rate, once we realized the situation we went to work to correct it. Institutes like this were established everywhere the disease appeared for the sole purpose of examining, treating, and experimenting with the hope of finding a cure. This section exists for the evaluation of treatment. We check the human cases, and the primates in the experimental laboratories. It is our duty to find out if anything the boys upstairs try shows any promise. We were a pretty big section once, but Thurston's virus has whittled us down. Right now there is just you and me. But there's still enough work to keep us busy. The experiments are still going on, and there are still human cases, even though the virus has killed off most of the susceptibles. We've evaluated over a thousand different drugs and treatments in this Institute alone."

"And none of them have worked?"

"No—but that doesn't mean the work's been useless. The research has saved others thousands of man hours chasing false leads. In this business negative results are almost as important as positive ones. We may never discover the solution, but our work will keep others from making the same mistakes."

"I never thought of it that way."

"People seldom do. But if you realize that this is international, that every worker on Thurston's Disease has a niche to fill, the picture will be clearer. We're doing our part inside the plan. Others are, too. And there are thousands of labs involved. Somewhere, someone will find the answer. It probably won't be us, but we'll help get the problem solved as quickly as possible. That's the important thing. It's the biggest challenge the race has ever faced—and the most important. It's a question of survival." Kramer's voice was sober. "We have to solve this. If Thurston's Disease isn't checked, the human

race will become extinct. As a result, for the first time in history all mankind is working together."

"All? You mean the Communists are, too?"

"Of course. What's an ideology if there are no people to follow it?" Kramer knocked the ashes out of his pipe, looked at the laboratory clock and shrugged. "Ten minutes more," he said, "and these tubes will be ready. Keep an eye on that clock and let me know. Meantime you can straighten up this lab and find out where things are. I'll be in the office checking the progress reports." He turned abruptly away, leaving her standing in the middle of the cluttered laboratory.

"Now what am I supposed to do here?" Mary wondered aloud. "Clean up, he says. Find out where things are, he says. Get acquainted with the place, he says. I could spend a month doing that." She looked at the littered bench, the wall cabinets with sliding doors half open, the jars of reagents sitting on the sink, the drainboard, on top of the refrigerator and on the floor. The disorder was appalling. "How he ever manages to work in here is beyond me. I suppose that I'd better start somewhere—perhaps I can get these bottles in some sort of order first." She sighed and moved toward the wall cabinets. "Oh well," she mused, "I asked for this."

Didn't you hear that buzzer?" Kramer asked.

"Was that for me?" Mary said, looking up from a pile of bottles and glassware she was sorting.

"Partly. It means they've sent us another post-mortem from upstairs."

"What is it?"

"I don't know—man or monkey, it makes no difference. Whatever it is, it's Thurston's Disease. Come along. You might as well see what goes on in our ultra modern necropsy suite."

"I'd like to." She put down the bottle she was holding and followed him to a green door at the rear of the laboratory.

"Inside," Kramer said, "you will find a small anteroom, a shower, and a dressing room. Strip, shower, and put on a clean set of lab coveralls and slippers which you will find in the dressing room. You'll find surgical masks in the wall cabinet beside the lockers. Go through the door beyond the dressing room and wait for me there. I'll give you ten minutes."

"We do this both ways," Kramer said as he joined her in the narrow hall beyond the dressing room. "We'll reverse the process going out."

"You certainly carry security to a maximum," she said through the mask that covered the lower part of her face.

"You haven't seen anything yet," he said as he opened a door in the hall. "Note the positive air pressure," he said. "Theoretically nothing can get in here except what we bring with us. And we try not to bring anything." He stood aside to show her the glassed-in cubicle overhanging a

bare room dominated by a polished steel post-mortem table that glittered in the harsh fluorescent lighting. Above the table a number of jointed rods and clamps hung from the ceiling. A low metal door and series of racks containing instruments and glassware were set into the opposite wall together with the gaping circular orifice of an open autoclave.

"We work by remote control, just like they do at the AEC. See those handlers?" He pointed to the control console set into a small stainless steel table standing beside the sheet of glass at the far end of the cubicle. "They're connected to those gadgets up there." He indicated the jointed arms hanging over the autopsy table in the room beyond. "I could perform a major operation from here and never touch the patient. Using these I can do anything I could in person with the difference that there's a quarter inch of glass between me and my work. I have controls that let me use magnifiers, and even do microdissection, if necessary."

"Where's the cadaver?" Mary asked.

"Across the room, behind that door," he said, waving at the low, sliding metal partition behind the table. "It's been prepped, decontaminated and ready to go."

"What happens when you're through?"

"Watch." Dr. Kramer pressed a button on the console in front of him. A section of flooring slid aside and the table tipped. "The cadaver slides off that table and through that hole. Down below is a highly efficient crematorium."

Mary shivered. "Neat and effective," she said shakily.

"After that the whole room is sprayed with germicide and sterilized with live steam. The instruments go into the autoclave, and thirty minutes later we're ready for another post-mortem."

"We use the handlers to put specimens into those jars," he said, pointing to a row of capped glass jars of assorted sizes on a wall rack behind the table. "After they're capped, the jars go onto that carrier beside the table. From here they pass through a decontamination chamber and into the remote-control laboratory across the hall where we can run biochemical and histological techniques. Finished slides and mounted specimens then go through another decontamination process to the outside lab. Theoretically, this place is proof against anything."

"It seems to be," Mary said, obviously impressed. "I've never seen anything so elegant."

"Neither did I until Thurston's Disease became a problem." Kramer shrugged and sat down behind the controls. "Watch, now," he said as he pressed a button. "Let's see what's on deck—man or monkey. Want to make a bet? I'll give you two to one it's a monkey."

She shook her head.

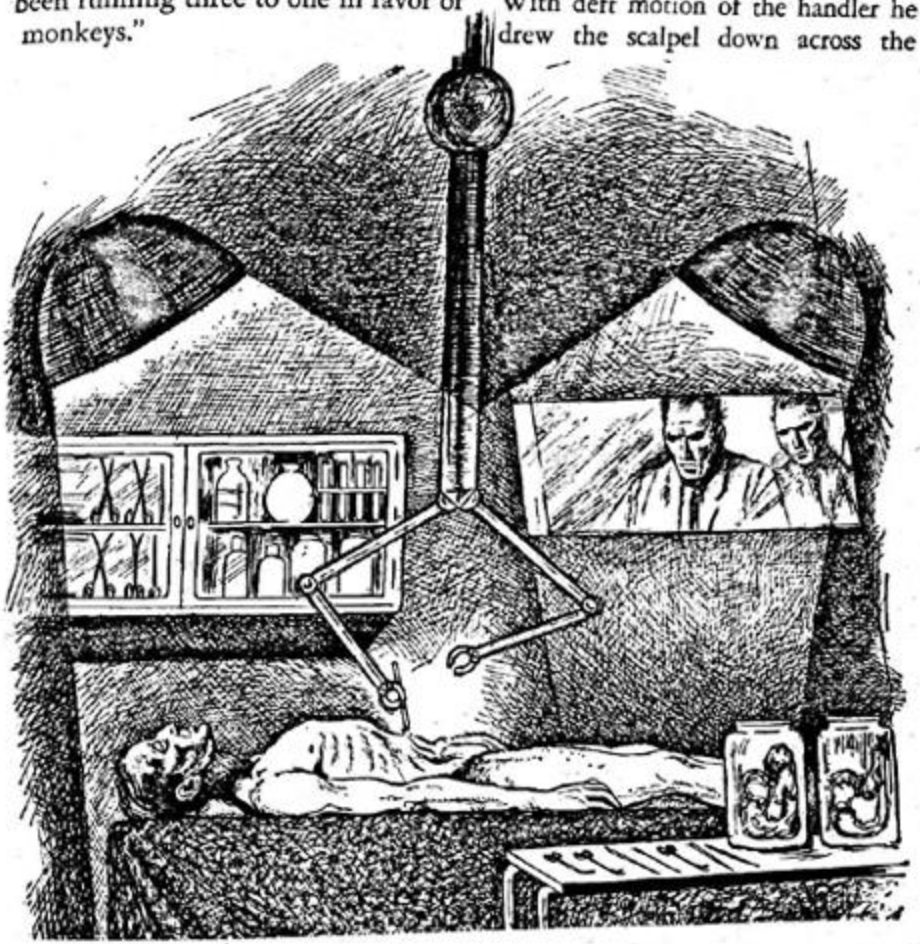
The low door slid aside and a steel carriage emerged into the necropsy

room bearing the nude body of a man. The corpse gleamed pallidly under the harsh shadowless glare of the fluorescents in the ceiling as Kramer, using the handlers, rolled it onto the post-mortem table and clamped it in place on its back. He pushed another button and the carriage moved back into the wall and the steel door slid shut. "That'll be decontaminated," he said, "and sent back upstairs for another body. I'd have lost," he remarked idly. "Lately the posts have been running three to one in favor of monkeys."

He moved a handler and picked up a heavy scalpel from the instrument rack. "There's a certain advantage to this," he said as he moved the handler delicately. "These gadgets give a tremendous mechanical advantage. I can cut right through small bones and cartilage without using a saw."

"How nice," Mary said. "I expect you enjoy yourself."

"I couldn't ask for better equipment," he replied noncommittally. With deft motion of the handler he drew the scalpel down across the



chest and along the costal margins in the classic inverted "Y" incision. "We'll take a look at the thorax first," he said, as he used the handlers to pry open the rib cage and expose the thoracic viscera. "Ah! Thought so! See that?" He pointed with a small handler that carried a probe. "Look at those lungs." He swung a viewer into place so Mary could see better. "Look at those abscesses and necrosis. It's Thurston's Disease, all right, with secondary bacterial invasion."

The grayish solidified masses of tissue looked nothing like the normal pink appearance of healthy lungs. Studded with yellowish spherical abscesses they lay swollen and engorged within the gaping cavity of the chest.

"You know the pathogenesis of Thurston's Disease?" Kramer asked.

Mary shook her head, her face yellowish-white in the glare of the fluorescents.

"It begins with a bronchial cough," Kramer said. "The virus attacks the bronchioles first, destroys them, and passes into the deeper tissues of the lungs. As with most virus diseases there is a transitory leukopenia—a drop in the total number of white blood cells—and a rise in temperature of about two or three degrees. As the virus attacks the alveolar structures, the temperature rises and the white blood cell count becomes elevated. The lungs become inflamed and painful. There is a considerable quantity of lymphoid exudate and pleural effusion. Secondary invaders and pus-forming bacteria follow the viral destruction of the lung tissue and form abscesses. Breathing becomes progressively more difficult as more lung tissue is destroyed. Hepatization and necrosis inactivate more lung tissue as the bacteria get in their dirty work, and finally the patient suffocates."

"But what if the bacteria are controlled by antibiotics?"

"Then the virus does the job. It produces atelectasis followed by progressive necrosis of lung tissue with gradual liquefaction of the parenchyma. It's slower, but just as fatal. This fellow was lucky. He apparently stayed out of here until he was almost dead. Probably he's had the disease for about a week. If he'd have come in early, we could have kept him alive for maybe a month. The end, however, would have been the same."

"It's a terrible thing," Mary said faintly.

"You'll get used to it. We get one or two every day." He shrugged. "There's nothing here that's interesting," he said as he released the clamps and tilted the table. For what seemed to Mary an interminable time, the cadaver clung to the polished steel. Then abruptly it slid off the shining surface and disappeared through the square hole in the floor. "We'll clean up now," Kramer said as he placed the instruments in the autoclave, closed the door and locked it, and pressed three buttons on the console.

From jets embedded in the walls a fine spray filled the room with fog.

"Germicide," Kramer said. "Later,

there'll be steam. That's all for now. Do you want to go?"

Mary nodded.

"If you feel a little rocky there's a bottle of Scotch in my desk. I'll split a drink with you when we get out of here."

"Thanks," Mary said. "I think I could use one."

Barton! Where is the MacNeal stain!" Kramer's voice came from the lab. "I left it on the sink and it's gone!"

"It's with the other blood stains and reagents. Second drawer from the right in the big cabinet. There's a label on the drawer," Mary called from the office. "If you can wait until I finish filing these papers, I'll come in and help you."

"I wish you would," Kramer's voice was faintly exasperated. "Ever since you've organized my lab I can't find anything."

"You just have a disorderly mind," Mary said, as she slipped the last paper into its proper folder and closed the file. "I'll be with you in a minute."

"I don't dare lose you," Kramer said as Mary came into the lab. "You've made yourself indispensable. It'd take me six months to undo what you've done in one. Not that I mind," he amended, "but I was used to things the way they were." He looked around the orderly laboratory with a mixture of pride and annoyance. "Things are so neat they're almost painful."

"You look more like a pathologist should," Mary said as she deftly removed the tray of blood slides from in front of him and began to run the stains. "It's my job to keep you free to think."

"Whose brilliant idea is that? Yours?"

"No—the Director's. He told me what my duties were when I came here. And I think he's right. You should be using your brain rather than fooling around with blood stains and sectioning tissues."

"But I like to do things like that," Kramer protested. "It's relaxing."

"What right have you to relax," Mary said. "Outside, people are dying by the thousands and you want to relax. Have you looked at the latest mortality reports?"

"No—"

"You should. The WHO estimates that nearly two billion people have died since Thurston's Disease first appeared in epidemic proportions. That's two out of three. And more are dying every day. Yet you want to relax."

"I know," Kramer said, "but what can we do about it. We're working but we're getting no results."

"You might use that brain of yours," Mary said bitterly. "You're supposed to be a scientist. You have facts. Can't you put them together?"

"I don't know." He shrugged. "I've been working on this problem longer than you think. I come down here at night—"

"I know. I clean up after you."

"I haven't gotten anywhere. Sure,

we can isolate the virus. It grows nicely on monkey lung cells. But that doesn't help. The thing has no apparent antigenicity. It parasitizes, but it doesn't trigger any immune reaction. We can kill it, but the strength of the germicide is too great for living tissue to tolerate."

"Some people seem to be immune."

"Sure they do—but why?"

"Don't ask me. I'm not the scientist."

"Play like one," Kramer growled. "Here are the facts. The disease attacks people of all races and ages. So far every one who is attacked dies. Adult Europeans and Americans appear to be somewhat more resistant than others on a population basis. Somewhere around sixty per cent of them are still alive, but it's wiped out better than eighty per cent of some groups. Children get it worse. Right now I doubt if one per cent of the children born during the past ten years are still alive."

"It's awful!" Mary said.

"It's worse than that. It's extinction. Without kids the race will die out." Kramer rubbed his forehead.

"Have you any ideas?"

"Children have less resistance," Kramer replied. "An adult gets exposed to a number of diseases to which he builds an immunity. Possibly one of these has a cross immunity against Thurston's virus."

"Then why don't you work on that line?" Mary asked.

"Just what do you think I've been doing? That idea was put out months ago, and everyone has been taking a crack at it. There are twenty-four laboratories working full time on that facet and God knows how many more working part time like we are. I've screened a dozen common diseases, including the six varieties of the common cold virus. All, incidentally, were negative."

"Well—are you going to keep on with it?"

"I have to." Kramer rubbed his eyes. "It won't let me sleep. I'm sure we're on the right track. Something an adult gets gives him resistance or immunity." He shrugged. "Tell you what. You run those bloods out and I'll go take another look at the data." He reached into his lab coat and produced a pipe. "I'll give it another try."

"Sometimes I wish you'd read without puffing on that thing," Mary said.

"Your delicate nose will be the death of me yet—" Kramer said.

"It's my lungs I'm worried about," Mary said. "They'l probably look like two pieces of well-tanned leather if I associate with you for another year."

"Stop complaining. You've gotten me to wear clean lab coats. Be satisfied with a limited victory," Kramer said absently, his eyes staring unseeingly at a row of reagent bottles on the bench. Abruptly he nodded. "Fantastic," he muttered, "but it's worth a check." He left the room, slamming the door behind him in his hurry.

That man!" Mary murmured. "He'd drive a saint out of his mind. If I wasn't so fond of him I'd quit. If

anyone told me I'd fall in love with a pathologist, I'd have said they were crazy. I wish—" Whatever the wish was, it wasn't uttered. Mary gasped and coughed rackingly. Carefully she moved back from the bench, opened a drawer and found a thermometer. She put it in her mouth. Then she drew a drop of blood from her forefinger and filled a red and white cell pipette, and made a smear of the remainder.

She was interrupted by another spasm of coughing, but she waited until the paroxysm passed and went methodically back to her self-appointed task. She had done this many times before. It was routine procedure to check on anything that might be Thurston's Disease. A cold, a sore throat, a slight difficulty in breathing —all demanded the diagnostic check. It was as much a habit as breathing. This was probably the result of that cold she'd gotten last week, but there was nothing like being sure. Now let's see—temperature 99.5 degrees, red cell count 4½ million. White cell count . . . oh! 2500 . . . leukopenia! The differential showed a virtual absence of polymorphs, lymphocytes and monocytes. The whole slide didn't have two hundred. Eosinophils and basophils way up—twenty and fifteen per cent respectively—a relative rise rather than an absolute one —leukopenia, no doubt about it.

She shrugged. There wasn't much question. She had Thurston's Disease. It was the beginning stages, the harsh cough, the slight temperature, the leukopenia. Pretty soon her white cell count would begin to rise, but it would rise too late. In fact, it was already too late. It's funny, she thought. I'm going to die, but it doesn't frighten me. In fact, the only thing that bothers me is that poor Walter is going to have a terrible time finding things. But I can't put this place the way it was. I couldn't hope to.

She shook her head, slid gingerly off the lab stool and went to the hall door. She'd better check in at the clinic, she thought. There was bed space in the hospital now. Plenty of it. That hadn't been true a few months ago but the only ones who were dying now were the newborn and an occasional adult like herself. The epidemic had died out not because of lack of virulence but because of lack of victims. The city outside, one of the first affected, now had less than forty per cent of its people left alive. It was a hollow shell of its former self. People walked its streets and went through the motions of life. But they were not really alive. The vital criteria were as necessary for a race as for an individual. Growth, reproduction, irritability, metabolism—Mary smiled wryly. Whoever had authored that hackneyed mnemonic that life was a "grim" proposition never knew how right he was, particularly when one of the criteria was missing.

The race couldn't reproduce. That was the true horror of Thurston's Disease—not how it killed, but who it killed. No children played in the parks and playgrounds. The schools were empty. No babies were pushed in carriages or taken on tours through

the supermarkets in shopping carts. No advertisements of motherhood, or children, or children's things were in the newspapers or magazines. They were forbidden subjects—too dangerously emotional to touch. Laughter and shrill young voices had vanished from the earth to be replaced by the drab grayness of silence and waiting. Death had laid cold hands upon the hearts of mankind and the survivors were frozen to numbness.

It was odd, she thought, how wrong the prophets were. When Thurston's Disease broke into the news there were frightened predictions of the end of civilization. But they had not materialized. There were no mass insurrections, no rioting, no organized violence. Individual excesses, yes—but nothing of a group nature. What little panic there was at the beginning disappeared once people realized that there was no place to go. And a grim passivity had settled upon the survivors. Civilization did not break down. It endured. The mechanics remained intact. People had to do something even if it was only routine counterfeit of normal life—the stiff upper lip in the face of disaster.

It would have been far more odd, Mary decided, if mankind had given way to panic. Humanity had survived other plagues nearly as terrible as this—and racial memory is long. The same grim patience of the past was here in the present. Man would somehow survive, and civilization go on.

It was inconceivable that mankind would become extinct. The whole vast resources and pooled intelligence of surviving humanity were focused upon Thurston's Disease. And the disease would yield. Humanity waited with childlike confidence for the miracle that would save it. And the miracle would happen. Mary knew it with a calm certainty as she stood in the cross corridor at the end of the hall, looking down the thirty yards of tile that separated her from the elevator that would carry her up to the clinic and oblivion. It might be too late for her, but not for the race. Nature had tried unaided to destroy man before—and had failed. And her unholy alliance with man's genius would also fail.

She wondered as she walked down the corridor if the others who had sickened and died felt as she did. She speculated with grim amusement whether Walter Kramer would be as impersonal as he was with the others when he performed the post-mortem on her body. She shivered at the thought of that bare sterile room and the shining table. Death was not a pretty thing. But she could meet it with resignation if not with courage. She had already seen too much for it to have any meaning. She did not falter as she placed a finger on the elevator button.

Poor Walter—she sighed. Sometimes it was harder to be among the living. It was good that she didn't let him know how she felt. She had sensed a change in him recently. His friendly impersonality had become

merely friendly. It could, with a little encouragement, have developed into something else. But it wouldn't now. She sighed again. His hardness had been a tower of strength. And his bitter gallows humor had furnished a wry relief to grim reality. It had been nice to work with him. She wondered if he would miss her. Her lips curled in a faint smile. He would, if only for the trouble he would have in making chaos out of the order she had created. Why couldn't that elevator hurry?

Mary! Where are you going?" Kramer's voice was in her ears, and his hand was on her shoulder.

"Don't touch me!"

"Why not?" His voice was curiously different. Younger, excited.

"I have Thurston's Disease," she said.

He didn't let go. "Are you sure?"

"The presumptive tests were positive."

"Initial stages?"

She nodded. "I had the first coughing attack a few minutes ago."

He pulled her away from the elevator door that suddenly slid open. "You were going to that death trap upstairs," he said.

"Where else can I go?"

"With me," he said. "I think I can help you."

"How? Have you found a cure for the virus?"

"I think so. At least it's a better possibility than the things they're using up there." His voice was urgent. "And to think I might never have seen it if you hadn't put me on the track."

"Are you sure you're right?"

"Not absolutely, but the facts fit. The theory's good."

"Then I'm going to the clinic. I can't risk infecting you. I'm a carrier now. I can kill you, and you're too important to die."

"You don't know how wrong you are," Kramer said.

"Let go of me!"

"No—you're coming back!"

She twisted in his grasp. "Let me go!" she sobbed and broke into a fit of coughing worse then before.

"What I was trying to say," Dr. Kramer said into the silence that followed, "is that if you have Thurston's Disease, you've been a carrier for at least two weeks. If I am going to get it, your going away can't help. And if I'm not, I'm not."

"Do you come willingly or shall I knock you unconscious and drag you back?" Kramer asked.

She looked at his face. It was grimmer than she had ever seen it before. Numbly she let him lead her back to the laboratory.

But, Walter—I can't. That's sixty in the past ten hours!" she protested.

"Take it," he said grimly, "then take another. And inhale. Deeply."

"But they make me dizzy."

"Better dizzy than dead. And, by the way—how's your chest?"

"Better. There's no pain now. But the cough is worse."

"It should be."

"Why?"

"You've never smoked enough to get a cigarette cough," he said.

She shook her head dizzily. "You're so right," she said.

"And that's what nearly killed you," he finished triumphantly.

"Are you sure?"

"I'm certain. Naturally, I can't prove it—yet. But that's just a matter of time. Your response just about clinches it. Take a look at the records. Who gets this disease? Youngsters—with nearly one hundred per cent morbidity and one hundred per cent mortality. Adults—less than fifty per cent morbidity—and again one hundred per cent mortality. What makes the other fifty per cent immune? Your crack about leather lungs started me thinking—so I fed the data cards into the computer and keyed them for smoking versus incidence. And I found that not one heavy smoker had died of Thurston's Disease. Light smokers and nonsmokers—plenty of them—but not one single nicotine addict. And there were over ten thousand randomized cards in that spot check. And there's the exact reverse of that classic experiment the lung cancer boys used to sell their case. Among certain religious groups which prohibit smoking there was nearly one hundred per cent mortality of all ages!

"And so I thought since the disease was just starting in you, perhaps I could stop it if I loaded you with tobacco smoke. And it works!"

"You're not certain yet," Mary said. "I might not have had the disease."

"You had the symptoms. And there's virus in your sputum."

"Yes, but—"

"But, nothing! I've passed the word—and the boys in the other labs figure that there's merit in it. We're going to call it Barton's Therapy in your honor. It's going to cause a minor social revolution. A lot of laws are going to have to be rewritten. I can see where it's going to be illegal for children not to smoke. Funny, isn't it?

"I've contacted the maternity ward. They have three babies still alive upstairs. We get all the newborn in this town, or didn't you know. Funny, isn't it, how we still try to reproduce. They're rigging a smoke chamber for the kids. The head nurse is screaming like a wounded tiger, but she'll feel better with live babies to care for. The only bad thing I can see is that it may cut down on her chain smoking. She's been worried a lot about infant mortality.

"And speaking of nurseries—that reminds me. I wanted to ask you something."

"Yes?"

"Will you marry me? I've wanted to ask you before, but I didn't dare. Now I think you owe me something—your life. And I'd like to take care of it from now on."

"Of course I will," Mary said. "And I have reasons, too. If I marry you, you can't possibly do that silly thing you plan."

"What thing?"

"Naming the treatment Barton's. It'll have to be Kramer's." ■